

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (currently amended) A storage system group comprising:
a first storage system ~~connected~~coupled to a host device for sending data to and ~~configured receiving to receive~~ data from said host device, the first storage system including a plurality of disk drives and a disk adaptor used to control the disk drives; and
a second storage system ~~connected~~coupled to said first storage system for receiving data from said first storage system,
wherein said first storage system comprises:
a first storage area for writing the data sent-received from said host device, the first storage area being defined on at least on one of the disk drives; and
a second storage area for writing the data written in said first storage area and update information relating to said data, the second storage area being defined on at least on one of the disk drives;
said second storage system comprises a third storage area for storing the data read from said second storage area and the update information relating to said data, where ; and
———the data and update information to be stored in said third storage area are read from said first storage system at prescribed-given time intervals.
2. (currently amended) The storage system group according to claim 1, wherein said second storage system ~~conducts the control so as to determine~~defines said ~~prescribed~~ time intervals according to a number of data read from said second storage area,
wherein said second storage area includes a first region for storing the update information and a second region for storing the data,
wherein said second storage system further includes a fourth storage area to store the data obtained from the third storage area without the update information.

3. (currently amended) The storage system group according to claim 1, wherein said second storage system ~~conducts the control so as to determine~~defines said ~~prescribed~~ time intervals according to a traffic of data sent and received between said first storage system and said second storage system,

wherein said second storage area includes a first region for storing the update information and a second region for storing the data,

wherein said second storage system further includes a fourth storage area to store the data obtained from the third storage area without the update information.

4. (currently amended) The storage system group according to claim 1, wherein said second storage system ~~conducts the control so as to determine~~defines said ~~prescribed~~ time intervals according to a storage capacity ~~held by~~of said third storage area.

5. (currently amended) The storage system group according to claim 1, wherein said second storage system ~~conducts the control so as to determine~~defines said ~~prescribed~~ time intervals according to a processing load of said second storage system ~~itself~~,

wherein said second storage area includes a first region for storing the update information and a second region for storing the data,

wherein said second storage system further includes a fourth storage area to store the data obtained from the third storage area without the update information.

6. (currently amended) The storage system group according to claim 1, wherein said second storage system reads from said first storage system ~~the information relating to the~~a storage capacity ~~held by~~of said second storage area in said first storage system and ~~conducts the control so as to determine~~defines said ~~prescribed~~ time intervals according to said information ~~thus read~~,

wherein said second storage area includes a first region for storing the update information and a second region for storing the data,

wherein said second storage system further includes a fourth storage area to store the data obtained from the third storage area without the update information.

7. (currently amended) The storage system group according to claim 1, wherein the update information to be written ~~into~~to said second storage area relates to ~~the~~an update sequence of the data that is to be written ~~into~~to said first storage area.

8. (currently amended) The storage system group according to claim 7, wherein said first storage system possesses management information relating to said second storage area; and

said second storage system reads from said first storage system the management information relating to said second storage area which is possessed by said first storage system and ~~conducts the control so as to determine~~defines said ~~prescribed~~ time intervals according to said management information ~~thus read~~.

9. (currently amended) The storage system group according to claim 1, wherein a plurality of said first storage areas ~~are present~~is provided; and the information that ~~will~~is to be written in said second storage area is ~~created~~obtained by taking as ~~the~~an object the data that ~~will~~are to be written in said plurality of first storage areas.

10. (original) The storage system group according to claim 9, wherein the update information to be written in said second storage area relates to the update sequence of the data that is to be written in said plurality of first storage areas.

11. (currently amended) The storage system group according to claim 9, wherein said first storage system allocates said second storage area as a ~~store~~storage area for the update information of the data that is to be written in said plurality of first storage areas and possesses the management information relating to said second storage area; and

said second storage system reads from said first storage system the management information relating to said second storage area possessed by said first storage system, ~~and~~said second storage system defining

~~conducts the control so as to determine said prescribed time intervals according to said management information thus read.~~

12. (currently amended) The storage system group according to claim 1, wherein said second storage system ~~transmits~~ sends to said first storage system at said time intervals a command requiring the ~~forwarding~~ transmitting of the data stored in said second storage area and the update information relating to said data ~~to said first storage system at said prescribed time intervals~~; and

said first storage system transmits the data stored in said second storage area and the update information relating to said data to said second storage system in response to said command.

13. (original) The storage system group according to claim 1, wherein said second storage system has a fourth storage area corresponding to said first storage area in said first storage system and stores data in said fourth storage area based on the update information and data stored in said third storage area.

14. (currently amended) The storage system group according to claim 13, wherein said second storage system controls the timing of the process for storing data in said fourth storage area according to a processing load of said second storage system ~~itself~~.

15. (currently amended) The storage system group according to claim 1, wherein said first storage system comprises a host adapter for sending data to and receiving data from the host device, a cache for retaining the data received by said host adapter, a disk adapter for transferring the data stored in said cache, and a plurality of disk drives for storing the data according to control of said disk adapter ~~control~~; and

said first storage area and said second storage area are allocated from a storage area in said plurality of disk drives.

16. (original) The storage system group according to claim 1,

wherein said second storage system comprises a host adapter for sending data to and receiving data from the host device, a cache for retaining the data received by said host adapter, a disk adapter for transferring the data stored in said cache, and a plurality of disk drives for storing the data according to said disk adapter control; and

said third storage area is allocated from a storage area in said plurality of disk drives.

17. (currently amended) A storage system group comprising:

a first storage system ~~connected~~coupled to a host device for sending data to and receiving data from said host device, the first storage system including a plurality of disk drives and a disk adaptor to used control the disk drives;

a second storage system ~~connected~~coupled to said first storage system for receiving data from said first storage system; and

a third storage system ~~connected~~coupled to said second storage system for receiving data from said second storage system;

wherein said first storage system comprises a first storage area for writing data ~~sent~~received from said host device;

said second storage system comprises a second storage area for writing the data written in said first storage area in said first storage system and update information relating to said data;

said third storage system comprises a third storage area for storing the data read from said second storage area in said second storage system and update information relating to said data; and

the data and update information to be stored in said third storage area are read from said second storage system at a ~~prescribed~~given time intervals.

18. (currently amended) The storage system group according to claim 17,

wherein said third storage system ~~conducts the control so as to determine~~defines said ~~prescribed~~ time intervals according to a number of data read from said second storage area.

19. (currently amended) The storage system group according to claim 17, wherein said third storage system ~~conducts the control so as to determine~~defines said prescribed time intervals according to a data ~~traffic of data~~ exchanged between said second storage system and said third storage system.

20. (currently amended) The storage system group according to claim 17, wherein said third storage system ~~conducts the control so as to determine~~defines said prescribed time intervals according to a storage capacity ~~held by~~of said third storage area.

21. (currently amended) The storage system group according to claim 17, wherein said third storage system ~~conducts the control so as to determine~~defines said prescribed time intervals according to a processing load of said third storage system ~~itself~~.

22. (currently amended) The storage system group according to claim 17, wherein said third storage system reads from said second storage system the information relating to the storage capacity ~~held by~~of said second storage area in said second storage system and ~~conducts the control so as to determine~~defines said prescribed time intervals according to said information ~~thus read~~.

23. (original) The storage system group according to claim 17, wherein the update information to be written into said second storage area relates to the update sequence of the data that is to be written into said second storage area.

24. (currently amended) The storage system group according to claim 23, wherein said second storage system possesses management information relating to said second storage area; and

said third storage system reads from said second storage system said management information relating to said second storage area ~~which is possessed by said second storage system and conducts the control so as to determine~~and sets said prescribed time intervals according to said management information ~~thus read~~that has been read.

25. (currently amended) The storage system group according to claim 17, wherein said third storage system transmits a command ~~requiring the forwarding of the data stored in said second storage area and update information relating to said data to said~~ second storage system at said ~~prescribed~~ time intervals; and

said second storage system transmits the data stored in said second storage area and the update information relating to said data to said third storage system in response to said command.

26. (original) The storage system group according to claim 17, wherein said third storage system has a fourth storage area corresponding to said first storage area in said first storage system and stores data in said fourth storage area based on the data and update information stored in said third storage area.

27. (currently amended) The storage system group according to claim 26, wherein said third storage system controls the timing of the process for storing data in said fourth storage area according to a processing load of said third storage system ~~itself~~.

28. (currently amended) The storage system group according to claim 17, wherein when said first storage system has written data sent from said host device to said first storage area, the first storage system transmits the data written in said first storage area to said second storage system; and

——said second storage system writes the data written in said first storage area of said first storage system and update information relating to said data into said second storage area.

29. (currently amended) A storage system group comprising:
a first storage system ~~connected~~ coupled to a host device for sending data to and receiving data from said host device;
a second storage system ~~connected~~ coupled to said first storage system for receiving data from said first storage system; and

a third storage system ~~connected~~ coupled to said second storage system for receiving data from said second storage system;

wherein said first storage system comprises a first storage area for writing data ~~sent~~ received from said host device;

said second storage system comprises a second storage area for writing data ~~sent~~ received from said first storage system and a third storage area for writing the data written into said second storage area and update information relating to said data;

said third storage system comprises a fourth storage area for storing data read from said third storage area in said second storage system and update information relating to said data; and

the data and update information to be stored in said fourth storage area are read from said third storage system at ~~the prescribed~~ given time intervals.

30. (currently amended) The storage system group according to claim 29, wherein said third storage system ~~conducts the control so as to determine~~ sets said ~~prescribed~~ time intervals according to a number of data read from said third storage area.

31. (currently amended) The storage system group according to claim 29, wherein said third storage system ~~conducts the control so as to determine~~ sets said ~~prescribed~~ time intervals according to a ~~traffic of data~~ traffic exchanged between said second storage system and said third storage system.

32. (currently amended) The storage system group according to claim 29, wherein said third storage system conducts the control so as to determine said ~~prescribed~~ time intervals according to a storage capacity ~~held by~~ of said fourth storage area.

33. (currently amended) The storage system group according to claim 29, wherein said third storage system ~~conducts the control so as to determine~~ sets said ~~prescribed~~ time intervals according to a processing load of said third storage system ~~itself~~.

34. (currently amended) The storage system group according to claim 29, wherein said third storage system reads from said second storage system information relating to the storage capacity ~~held by~~ of said third storage area in said second storage system and ~~conducts the control so as to determine~~sets said ~~prescribed~~ time intervals according to said information ~~thus read~~.

35. (original) The storage system group according to claim 29, wherein the update information to be written into said third storage area relates to the update sequence of the data to be written into said second storage area.

36. (currently amended) The storage system group according to claim 35, wherein said second storage system possesses management information relating to said third storage area; and

said third storage system reads from said second storage system the management information relating to said third storage area ~~which is possessed by said second storage system~~ and ~~conducts the control so as to determine~~sets said ~~prescribed~~ time intervals according to said management information ~~thus read~~that has been read.

37. (currently amended) The storage system group according to claim 29, wherein said third storage system transmits a command ~~requiring the forwarding of data stored in said second storage area and the update information relating to said data to said second storage system at said prescribed time intervals; and~~

said second storage system transmits the data stored in said third storage area and update information relating to said data to said third storage system in response to said command.

38. (original) The storage system group according to claim 29, wherein said third storage system has a fifth storage area corresponding to said second storage area in said second storage system and stores data in said fifth storage area based on the data and update information stored in said fourth storage area.

39. (currently amended) The storage system group according to claim 38, wherein said third storage system controls the timing of the process for storing data in said fifth storage area according to a processing load of said third storage system-itself.

40. (new) A storage system provided in a storage system group including two or more storage systems and at least one host, the storage system comprising:

a network interface used to coupled the storage system to a remote computer system;

a plurality of storage devices configured to store data or management information;

a storage adaptor configured to control the plurality of storage devices;

a first storage area defined on at least one of the storage devices, the first storage area being configured to store write data transmitted by the host; and

a second storage area defined on at least one of the storage devices, the second storage area being configured to store a journal, the journal including journal data and update information corresponding to the journal data, the journal data corresponding to the write data,

wherein the storage system transmits the journal stored in the second storage area to a remote storage system for data mirroring, the journal being stored in a third storage area of the remote storage system.

41. (new) The storage system of claim 40, wherein the write data of the journal is stored in a fourth storage area of the remote storage system to mirror the first storage area of the storage system, the fourth storage area not including the update information,

wherein the storage system is a disk array unit, the network interface is a host adaptor or channel adaptor, the storage devices are hard disk drives, and the storage adaptor is a disk adaptor.

42. (new) The storage system of claim 40, wherein the first and third storage areas are storage volumes, where the second and fourth storage areas are journal volumes, each having two different regions for storing write data and update information, respectively.